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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Peter Hubertus Lamers

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2554

7590

12/23/2009

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EXAMINER

CHANG, VICTOR S

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

12/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/529,436	Applicant(s) LAMERS ET AL.	
	Examiner VICTOR S. CHANG	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 2-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 26 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Introduction

1. Applicants' amendments and remarks filed on 9/21/2009 have been entered. Claim 1 has been amended. Claims 1, 26 and 27 are active.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. In response to the amendments, the grounds of rejection have been updated as set forth below. Rejections not maintained are withdrawn.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1, 26 and 27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

More particularly, in claim 1, the newly added limitation "said foam-structure having a free volume of more than 60%" is new matter. Applicants are reminded that applicants'

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specification discloses that the foam structure has a free volume of 40-60% [pp. 10, ll. 28 through pp. 29, ll. 2; pp. 16, ll. 27-28]. New matter must be cancelled in the next reply.

Rejections Based on Prior Art

6. Claims 1, 26 and 27 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cox et al. [EP 1 010 793].

Cox's invention relates to a core material suitable for use in closed mould systems. The core material is based on at least one fibrous web containing a foam-structure within the web [abstract]. The foam structure can be prepared from expandable microspheres which are introduced into the web using an optionally foamed binder material [0015]. The core material has a bending stiffness which allows easy bending around corners (drapable) [0017]. The expanded microspheres (members) have a diameter of 10-100 μm [0028]. The core material has open channels and permeable to resin [0014]. In one embodiment, accessibility for the resin (resin flow properties) are provided by disposing the microspheres mainly within the fibrous web, and are arranged to form a pattern of 'islands', which are separated from each other by areas (channels) containing no microspheres, but only fibres (microspheres are distributed irregularly). Preferably, the microspheres are arranged in a regular pattern [0030].

For claims 1 and 26, Cox is silent about the average diameter of the channels. However, since Cox teaches generally the same structure and composition, made by the same method, and for the same end use (core material for use in closed mould systems) as the claimed invention, workable average diameter of the channels is deemed to be either anticipated, or obviously provided by practicing the invention of prior art, dictated by the same end use requirements.

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Regarding newly added limitation “said foam-structure having a free volume of more than 60%”, for the same reason set forth above, absent any evidence to the contrary, a workable amount of free volume of expanded microspheres is deemed to be obviously provided by practicing the invention of prior art, dictated by the same end use requirements.

For claim 27, since Cox teaches foam formed of expanded microspheres, the foam inherently has a closed cell structure. Otherwise, the foam structure would have collapsed.

Response to Arguments

7. Applicants’ argue at page 6:

“from the Cox et al. specification it follows that the end use requirements are substantially different from those of the present invention. The present invention is a solution to the problem of low surface quality as encountered in either closed mould systems, spray up application and/or hand lay up applications. The end use of Cox et al., on the other hand, is the use of core materials in fiber reinforces plastics specifically in closed mould systems.”

However, as admitted by applicants that, as recited in claim 1, that the present invention does not exclude the same end use, i.e., closed mould systems. As such, at least Cox reads on the closed mould systems as claimed. Further, absent any evidentiary support, it is inconceivable that the molded product of Cox would necessarily have low surface quality. It is well settled that attorney arguments cannot take the place of evidence. The examiner maintains that since Cox reads on the same end use as claimed, at least in the closed mould systems, and same end use requirements are expected.

Applicants argue at page 7:

“After having identified the problem of surface quality, the inventors investigated possible solutions. After extensive experiments the inventors found that this problem could be tackled by providing the members in the core material in the specific way of the

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present claims, viz. by making the members smaller than 1.5mm and the channel average diameter less than 0.75mm.”

However, absent any reasoning how the surface quality is related to the permeability or the channel average diameter, again applicants’ argument appears to be baseless speculation. More particularly, since Cox relates to close mould systems, resin is injected into the closed mold in melt state to fill up the space between the core material and the inner walls of the mold. Other than insufficiently provided amount of resin, it is inconceivable how the permeability of the core material affects the surface quality, which is deemed to be controlled by how well the resin is filled between the gap of the mold inner surface and the surface of the core material, and then providing sufficient amount of time to set the shape, including surface layer, of the molded article before de-molding, not by how fast the resin permeates the channels of the core material.

Applicants argue at page 8:

“Cox et al., therefore, teaches away from increasing the free volume to more than 60%.”

However, applicants are reminded that applicants' specification discloses that the foam structure has a free volume of 40-60% [pp. 10, ll. 28 through pp. 29, ll. 2; pp. 16, ll. 27-28]. New matter must be cancelled in the next reply.

Applicants argue at page 8:

“the method of Cox et al. cannot be considered to be the same as that of the present invention, because the present invention requires that the members are of a specific size and placed at a specific mutual distance, both of which dimensions are not disclosed nor suggested in Cox et al.”

However, applicants are reminded that the size and placing of the core material are absent from the claims. Further, even if they are disclosed, the examiner maintains that workable size of the core material in a closed mould system is deemed to be routine optimization to one of ordinary

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skill in the art. There is no reason whatsoever to believe that Cox necessary teaches an oversized or undersized core material.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VICTOR S. CHANG whose telephone number is (571)272-1474. The examiner can normally be reached on 6:00 am - 4:00 pm, Tuesday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on 571-272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Victor S Chang/
Primary Examiner, Art Unit 1794